

Community-driven networks & Microtelcos

A strategy for ICT rollout & social inclusion

Bruce Girard
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Traditional solution

- create incentives and offer subsidies to encourage traditional large-scale telecom operators to provide service to communities where they would otherwise not go
- despite the major gains there is still a very significant rural access gap and in many many areas ICT networks and services are NOT effectively reaching the poor

ICT/development challenges for poor rural areas

- No telephony; or high tariffs from mobiles
- Limited fixed line network, high-speed backbone
- High cost bandwidth
- ICT services often do suit local needs and capacities
- Lack of capacity to access, use and secure broader development benefits from ICT use.

A viable alternative for providing access

In many situations a viable alternative can be found in small-scale telecom operators that combine local entrepreneurship, innovative business models, and low-cost technologies to offer an array of ICT services in areas of little interest to traditional operators

Microtelcos and community-driven networks

Community and local networks can provide affordable access

- They have been doing it for almost 100 years
 - USA – in the 1920s 6,000 rural telephony cooperatives. Today 1,000 providing quality services at low-cost
 - Argentina – Since 1960s in communities that Entel declared not profitable. Today they provide 8% of fixed lines and in many cases better services at lower cost
- New factors are coming into play that make the model even more relevant

New factors

- Technologies
 - Low-cost, scaleable, easily maintained broadband wireless
 - VoIP coming of age, including handsets
- Regulation & Policy Trends
 - Openings for local licenses
 - New approaches to Universal Access Fund
- Development advantages of local initiatives are becoming clear

An emerging network management model: *Characteristics of Community Telecommunications Cooperatives /Local Network Cooperatives/Enterprises*

- Leverages community inputs (labour, rights of way, resources etc.)
- Can help link ICT access and use to community development priorities
- Community “triple-play model”

What services can it provide?

- Shared bandwidth: Wireless network to connect all local actors
- Cheap Telephony: Very-low cost local VoIP at multiple points
- Channel for service delivery development network (distributed, accessible e-gov nodes)
- Capacity-building hub – enterprise can build on existing telecenter or otherwise provide dedicated or facilitate peer-2-peer support services
- Flexible content & delivery mechanism offer combination of ICTs such as radio, video, telephony and connectivity to meet development needs of network users
- Catalyzer of development catalyze, support and benefit from other local & community initiatives (resources stay in the area)

Bonus features of microtelcos and community networks - I

- Potential to harness local entrepreneurial ability
- Enhance development networking of local actors, economic and social
- Create employment directly (service provision) and indirectly (catalyze new opportunities through enhanced ICT service provision)

Bonus features of microtelcos and community networks - II

- Extend reach and enhance provision/transparency of government services, including local government services
- Contribute to retaining income in the community
- Reinforce overall community self-help & local development efforts

What can be done?

- Develop a national policy strand
 - designate priority areas, develop legal structures...
- Create an enabling regulatory environment
 - licence-exempt spectrum, technology neutral licences, simplified licencing, interconnection
- Make investment and finance mechanisms available
 - access to existing development and investment funds, low-cost loans and donor funding
 - make universal service funds available